WHAT IS CLAIMED IS:

1. A pure peptide product exhibiting optimal monocyte chemotactic activity at a concentration of 1 nM; said peptide product exhibiting an estimated molecular mass of about 8,400 daltons.

2. The pure peptide product of claim 1 obtained by the process comprising the steps of:

(I) culturing live cells derived from:

(a) human glioma cell line U-105MG, or

(b) human peripheral blood mononuclear leukocytes, in an appropriate growth medium

(II) separating said cells from said growth medium;

(III) chromatographing said growth medium on an Orange-A Sepharose column, utilizing an appropriate solvent, and collecting the fractions which contain the desired peptides;

(IV) chromatographing said peptide containing fraction obtained in Step III on an appropriate cation-exchange HPLC column, utilizing appropriate solvents, and collecting the fractions which contain said desired peptides;

(V) chromatographing said peptide containing fractions obtained in Step IV on a reverse phase HPLC column, utilizing an appropriate solvent, and collecting the fractions containing said desired peptides; and

(VI) removing liquid from said peptide containing fractions obtained in Step V, to give said peptide product as in a solid form.

3. The pure peptide product of claim 1, which is derived from glioma cell line U-105MG, said peptide product ~~having~~ comprising an amino acid sequence of:

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1         10         20         30
XPDAINAPVTCCYNFTNRKISVQRLASYRRITSSKCPKE

40         50         60         70
AVIFKTIVAKEICADPKQKWVQDSMDHLDKQTQTPKT
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wherein:

A is Alanine;
C is Cysteine;
D is Aspartic Acid;
E is Glutamic Acid;
F is Phenylalanine;
H is Histidine;
I is Isoleucine;
K is Lysine;
L is Leucine;
M is Methionine;
N is Asparagine;
P is Proline;
Q is Glutamine;
R is Arginine;
S is Serine;
T is Threonine;
V is Valine;
W is Tryptophan;
X is Tyrosine; and
~~X~~ Y is pyroglutamic acid.

4. A method of preparing a pure peptide product, having a molecular weight of about 8,400 daltons, and exhibiting optimal monocyte chemotactic activity at a concentration of 1 nM; said method comprising the steps of:

(I) culturing live cells derived from:

(a) human glioma cell line U-105MG, or

(b) human peripheral blood mononuclear leukocytes, in an appropriate growth medium;

(II) separating said cells from said growth medium;

(III) chromatographing said growth medium on an Orange-A Sepharose column, utilizing an appropriate solvent, and collecting the fractions which contain the desired peptides;

(IV) chromatographing said peptide containing fractions obtained in Step III on an appropriate cation-exchange HPLC column, utilizing appropriate solvents, and collecting the fractions which contain said desired peptides;

(V) chromatographing said peptide containing fraction obtained in Step IV on a reverse phase HPLC column, utilizing an appropriate solvent, and collecting the fractions containing said desired peptides; and

(VI) removing liquids from said peptide containing fractions obtained in Step V, to give said peptide product in a solid form.

5. A method of treating infection in a human which comprises administering to a human an effective infection treating amount of the pure peptide product of claim 1.

6. A method of treating neoplasms in a human which comprises administering to a human an effective neoplasm treating amount of the purified peptide product of claim 1.

7. A pharmaceutical composition comprising:

the pure peptide product of claim 1; and

a pharmaceutically acceptable carrier therefor.

8. A cDNA encoding for a human monocyte chemoattractant peptide.

9. The cDNA of claim 8, which comprises the following nucleotide sequence, or a bioequivalent thereof:

CAG CCA GAT GCA ATC AAT GCC CCA GTC ACC TGC TGT TAT AAC
TTC ACC AAT AGG AAG ATC TCA GTG CAG AGG CTC GCG AGC TAT
AGA AGA ATC ACC AGC AAG TGT CCC AAA GAA GCT GTG ATC TTC
AAG ACC ATT GTG GCC AAG GAG ATC TGT GCT GAC CCC AAG CAG
AAG TGG GTT CAG GAT TCC ATG CAG CAC CTG GAC AAG CAA ACC
CAA

wherein,

C is cytosine, T is thymine, A is adenine, and G is guanine.

10. The cDNA of claim 9, wherein a mutation or variation in said cDNA occurs.

11. The cDNA coding of claim 9, wherein said nucleotide sequence, or bioequivalent thereof, codes for a polypeptide comprising the following amino acid sequence or a biological equivalent thereof:

Gln Pro Asp Ala Ile Asn Ala Pro Val Thr Cys Cys Tyr Asn Phe

Thr Asn Arg Lys Ile Ser Val Gln Arg Leu Ala Ser Tyr Arg Arg

Ile Thr Ser Ser Lys Cys Pro Lys Glu Ala Val Ile Phe Lys Thr

Ile Val Ala Lys Glu Ile Cys Ala Asp Pro Lys Gln

wherein,

Met is methionine,	Gly is glycine,
Lys is lysine,	Asp is aspartic acid,
Val is valine,	Asn is asparagine,
Ala is alanine,	Tyr is tyrosine,
Leu is leucine,	Glu is glutamic acid,
Cys is cysteine,	Trp is tryptophan,
Ile is isoleucine,	His is histidine,
Thr is threonine,	Pro is proline,
Phe is phenylalanine, and	Gln is glutamine.

12. A recombinant vector containing the cDNA of claim 9.

13. The vector of claim 12 which is a plasmid.

14. The vector of claim 13 which is lambda ZAP II.

15. A microorganism containing the vector of claim 12.

16. A microorganism containing the vector of claim 13.

17. A microorganism containing the vector of claim 14.

18. A method of producing a human monocyte chemoattractant factor which comprises culturing the microorganism of claim 16, under conditions that allow for expression of said factor.

19. A method of producing a human monocyte chemoattractant factor which comprises culturing the microorganism of claim 17, under conditions that allow for expression of said factor.